

Amendments to the Drawings

The attached drawing sheet includes a change to Fig. 4. The sheet includes only Fig. 4, the original of which it replaces. Per the objection made in the Office Action, this figure has been revised to include a depiction of the grounding of pin 13.

Attachments: Replacement Sheet
 Annotated Sheet Showing Changes

REMARKS/ARGUMENTS1. Drawings

As noted above, Fig. 4 has been revised to include a depiction of the grounding of pin 13, per the objection made in the Office Action.

2. Specification

In the specification, paragraph [0017] has been amended to reference the branched bus (18') depicted in Fig. 2, and paragraph [0022] has been amended to reference the pins (21) depicted in Fig. 3. No new matter has been introduced.

Also per the objections in the Office Action, paragraph [0042] has been amended to eliminate the duplicate word, "been."

3. Claim Objections

Claims 9 and 12 were objected to for informalities, and have been appropriately amended. These amendments do not narrow the scope of the claims in any way, as the words added are superfluous.

4. Claim Rejections - Indefiniteness

Claim 15 was rejected as indefinite for lack of antecedent basis for the term "the issuance," and has been amended appropriately. It is submitted that this amendment does not narrow or alter the scope of claim 15 as reasonably interpreted.

5. Claim Rejections - Prior Art

Claims 1-20 stand rejected as anticipated by U.S. Patent No. 5,014,622 to Jullian ("Jullian"). Jullian teaches a system including a master device and a number of connected slave devices, in which the master device queries and receives an identifying response from every connected slave device. See col. 17, lines 7-64 and col. 18, line 64 to col. 19, line 15 (describing the QUERY ADDRESS command).

In contrast, in the present invention, identifying responses to a detection command are issued only by any slave devices for which identification information has not already been loaded into the master device. Claims 1, 14, and 18 have each been correspondingly amended, and also to add the limitations that a plurality of slave devices are connected to the system, and that the identifications of one or more of them are loaded into the master device before the issuance of any slave device identifying responses, as follows:

1. A method of identifying detecting unidentified slave devices in a system including a master device and a number plurality of slave devices, comprising the following steps:

- a) providing each slave device in the system with an identification and loading one or more slave device identifications into the master device;
- b) connecting at least one slave device to the system;
- c) issuing a command on the system from the master device; and,
- d) issuing a response only from any slave devices on the system for which identification information has not been loaded in the master device, said response including the slave device's identification.

14. A slave device for use in a system including a master device and other slave devices connected to the system wherein the master device is pre-loaded with identification information corresponding to at least one slave device in the system, said slave device

having an identification and being configured and/or programmed to issue a response to the master device including [[the]] identification of the slave device in response to a detection command from the master device only if the identification of said slave device has not been identified to said pre-loaded in the master device.

18. A system including a master device and a plurality of slave devices each connected to the master device and having an identification wherein the master device is pre-loaded with identification information corresponding to at least one slave device in the system, said system being configured and/or programmed ~~to send the identification to the master device of so~~ that only any slave devices connected to the system the identification of which that have not been pre-loaded in identified to the master device send their identification to the master device in response to a detection command.

Clean versions of these amended claims are as follows:

1. A method of detecting unidentified slave devices in a system including a master device and a plurality of slave devices, comprising the following steps:

- a) providing each slave device in the system with an identification and loading one or more slave device identifications into the master device;
- b) connecting at least one slave device to the system;
- c) issuing a command on the system from the master device; and,
- d) issuing a response only from any slave devices on the system for which identification information has not been loaded in the master device, said response including the slave device's identification.

14. A slave device for use in a system including a master device and other slave devices connected to the system wherein the master device is pre-loaded with identification information corresponding to at least one slave device in the system, said slave device having an identification and being configured and/or programmed to issue a response to the master device including identification of the slave device in response to a detection command from the master device

only if the identification of said slave device has not been pre-loaded in the master device.

18. A system including a master device and a plurality of slave devices each connected to the master device and having an identification wherein the master device is pre-loaded with identification information corresponding to at least one slave device in the system, said system being configured and/or programmed so that only any slave devices connected to the system the identification of which have not been pre-loaded in the master device send their identification to the master device in response to a detection command.

As amended, independent claims 1, 14, and 18 now clearly recite limitations that are neither taught nor reasonably suggested by Jullian or any obvious modification thereof.

New claim 21 generally tracks claim 1 and likewise includes the first two of the three new limitations (namely, that only any unidentified slave devices issue a response to the command, and that the system includes a plurality of slave devices), but in place of the pre-loading identification limitation, new claim 21 presents the following limitation:

issuing a clock sequence on the system after issuing said command, said clock sequence comprising sequential clock pulses correlated to possible identifications of slave devices such that each sequential clock pulse corresponds to a different multiplicity of possible identifications.

The method, system, and devices according to the claimed invention present significant non-obvious distinctions over those of Jullian, providing for example the potential for significantly enhanced efficiency in a comparably sized system.

Favorable action on this application is thus respectfully requested in view of the foregoing amendments.

Respectfully submitted,



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Annotated Sheet Showing Changes

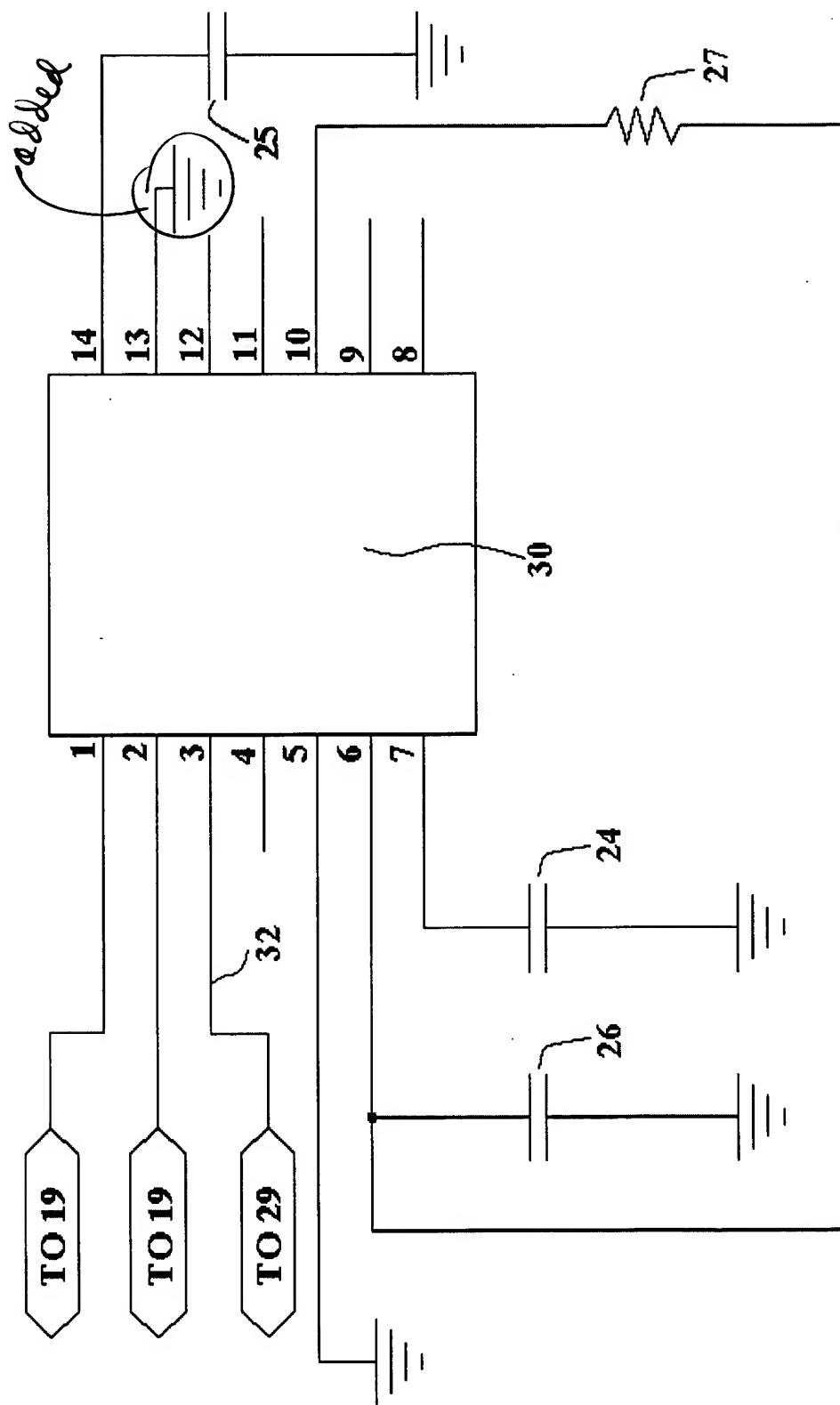


FIG. 4